Amendments to the Claims:

This Listing of Claims will replace all prior versions and listings of claims in the Application:

Listing of Claims:

1. (Currently Amended) An electrochemiluminescence cell comprising:

a. a working electrode and a counter electrode, wherein at least one of said electrodes comprises a platinum alloy comprising:

a first predetermined weight percent of platinum; and

a second predetermined weight percent of an element other than platinum or rhodium;

wherein said first predetermined weight percent is greater than zero and wherein said second predetermined weight percent is from 5% to 50%; and

b. a light detector and/or a transparent portion of said cell in optical registration with said working electrode;

wherein the counter electrode is disposed adjacent to the working electrode and the light detector and/or the transparent portion.

2. (Currently Amended) The cell of claim 1, wherein said element is chosen from Ni, Pd, Co, Fe, Ru, Os, Cr, Mo, Zn, Nb, Ir, [[~~Rh~~]] and W.

3. (Original) The cell of claim 1, wherein said element is a transition element.

4. (Previously Presented) The cell of claim 2, wherein said second predetermined weight percent is from 10% to 30%.

5. (Previously Presented) The cell of claim 4, wherein at a pH in the range 6.5 to 8.0 at at least one of said electrodes, tripropylamine is oxidized at a lower potential than water.

6. (Previously Presented) The cell of claim 5, wherein at 1.3 V (vs. Ag/AgCl) the current density at at least one of said electrodes for the oxidation of tripropylamine is at least twice as large as the current density at said electrode for the oxidation of water.

7. (Canceled).

8. (Previously Presented) The cell of claim 6, wherein the working electrode is for generating electrochemiluminescence.

9. (Canceled).

10. (Previously Presented) The cell of claim 8, further comprising

a support, attached to said counter electrode, having a transparent portion in optical registration with said working electrode.

11. (Original) The cell of claim 10, wherein said counter electrode comprises at least one field extending element interposed between said transparent portion and said working electrode.

12. (Original) The cell of claim 11 wherein said working electrode is capable of inducing a ruthenium-tris-bipyridine moiety to electrochemiluminesce in the presence of tripropylamine.

13. (Original) The cell of claim 12, further comprising a magnet adjacent said working electrode to collect magnetizable particles thereon.

14. (Original) The cell of claim 13, wherein said cell is a flow cell.

15. (Original) The cell of claim 14, further comprising a reference electrode.

16. (Original) The cell of claim 15, further comprising a light detector for detecting electrochemiluminescence generated in said cell.

17. (Original) The cell of claim 16, wherein said light detector is a photodiode.

18. (Original) The cell of claim 17, further comprising a source of electrical energy coupled to said electrodes.

19. (Original) The electrochemiluminescence cell of claim 18, wherein said source of electrical energy is a potentiostat.

20. (Currently Amended) An electrochemiluminescence cell comprising:

a. a working electrode and a counter electrode, wherein at least one of said electrodes comprises ~~rhodium or~~ a rhodium alloy comprising:

a first predetermined weight percent greater than zero of rhodium; and

~~optionally,~~ a second predetermined weight percent ~~greater than zero~~ from 5% to 50% of an element other than rhodium or platinum; and

b. a light detector and/or a transparent portion of said flow cell in optical registration with said working electrode;

wherein the counter electrode is disposed adjacent to the working electrode and the light detector and/or the transparent portion.

21. (Currently Amended) The cell of claim 20, wherein said element is chosen from [[~~Pt,~~]] Ni, Pd, Co, Fe, Ru, Os, Cr, Mo, Zn, Nb, Ir, and W.

22. (Currently Amended) An electrochemiluminescence cell comprising:

a. a working electrode and a counter electrode, wherein at least one of said electrodes comprises an iridium alloy comprising:

a first predetermined weight percent of iridium; and

a second predetermined weight percent of an element other than iridium;

wherein said first predetermined weight percent is greater than zero and wherein said second predetermined weight percent is from 5% to 50%; and

b. a light detector and/or a transparent portion of said ~~flow~~ cell in optical registration with said working electrode;

wherein the counter electrode is disposed between the working electrode and the light detector and/or the transparent portion.

23. (Previously Presented) The cell of claim 22, wherein said element is chosen from Pt, Ni, Pd, Co, Fe, Ru, Os, Cr, Mo, Zn, Nb, Rh, and W.

24. (Canceled).

25. (Currently Amended) An electrochemiluminescence cell comprising:

a working electrode;

a counter electrode having a field extending element, wherein the counter electrode is not a mesh or screen; and

a support, optionally attached to said counter electrode, having a transparent portion in optical registration with said working electrode; and wherein said field extending element is interposed between said transparent portion of said support and said working electrode; and

wherein the field extending element reduces the electrochemiluminescence incident upon said transparent portion by less than 50%.

26. (Original) The cell of claim 25, wherein said field extending element traverses said transparent portion.

27. (Original) The cell of claim 25, wherein said field extending element comprises a ladder electrode.

28. (Canceled).

29. (Currently Amended) The cell of claim 25, wherein said field extending element comprises projections that form an interdigitated array ~~reduces the electrochemiluminescence incident upon said transparent portion by less than 50%~~.

30. (Original) The cell of claim 29, wherein the current path aspect ratio is less than 2.5.

31. (Currently Amended) An electrochemiluminescence assay apparatus comprising:

a working electrode;

a counter electrode;

a support, optionally attached to said counter electrode, having a transparent portion in optical registration with said working electrode;

a light detector in optical registration with said working electrode, said light detector being positioned closer to said counter electrode than said working electrode; and

a source of electrical energy, coupled to said electrodes, capable of maintaining said counter electrode at a substantially constant ground potential or at a potential that does not vary relative to a potential of said light detector.

32. (Original) The apparatus of claim 31, wherein said source of electrical energy is a potentiostat.

33. (Original) The apparatus of claim 32, further comprising a magnet adjacent said working electrode to collect magnetizable particles thereon.

34. (Original) The apparatus of claim 33, wherein said apparatus comprises an electrochemiluminescence flow cell.

35. (Original) The apparatus of claim 34, further comprising a reference electrode.

36. (Original) The apparatus of claim 35, wherein said light detector is a photodiode.

37. (Currently Amended) A method of conducting an electrochemiluminescence assay, the method comprising the steps of: ~~step of inducing electrochemiluminescence in~~ providing an electrochemiluminescence cell, ~~wherein~~ said cell comprising:

a. a working electrode and a counter electrode, wherein at least one of said electrodes comprises a platinum alloy comprising:

a first predetermined weight percent of platinum; and

a second predetermined weight percent of an element other than platinum;

wherein said first predetermined weight percent is greater than zero and wherein said second predetermined weight percent is from 5% to 50%; and

b. a light detector and/or a transparent portion of said cell in optical registration with said working electrode;

wherein the counter electrode is disposed between the working electrode and the light detector and/or the transparent portion; and

inducing electrochemiluminescence in the cell.

38. (Previously Presented) The method of claim 37, wherein said element is chosen from Ni, Pd, Co, Fe, Ru, Os, Cr, Mo, Zn, Nb, Ir, Rh and W.

39. (Previously presented) The method of claim 37, wherein said element is a transition element.

40. (Previously Presented) The method of claim 38, wherein said second predetermined weight percent is from 10% to 30%.

41. (Canceled).

42. (Previously Presented) The method of claim 40, wherein said working electrode is for generating electrochemiluminescence.

43. (Previously Presented) The method of claim 42, further comprising the steps of:

a. forming a composition comprising an electrochemiluminescence label and an electrochemiluminescence coreactant;

b. positioning said composition at said electrode;

c. applying electrical energy to said electrode to induce said electrochemiluminescence label to electrochemiluminesce; and

d. measuring an emitted electrochemiluminescence.

44. (Previously Presented) The method of claim 43, wherein said electrochemiluminescence label is an organometallic complex.

45. (Previously Presented) The method of claim 44, wherein said organometallic complex is a polypyridyl complex of Ru or Os.

46. (Previously Presented) The method of claim 44, wherein said organometallic complex comprises a ruthenium-tris-bipyridine moiety.

47. (Previously Presented) The method of claim 46, wherein said electrochemiluminescence coreactant is a molecule capable of being oxidized to produce a strong reductant.

48. (Previously Presented) The method of claim 47, wherein said electrochemiluminescence coreactant is a tertiary amine.

49. (Previously Presented) The method of claim 48, wherein said tertiary amine is tripropylamine.

50. (Previously Presented) The method of claim 49, further comprising the step of collecting a magnetizable particle on said working electrode.

51. (Previously Presented) The method of claim 50, wherein said electrochemiluminescence label is present on said magnetizable particle.

52. (Previously Presented) The method of claim 51, further comprising the step of cleaning said working electrode by applying electrical energy to said working electrode.

53. (Previously Presented) The method of claim 52, wherein electrochemiluminescence is induced within an electrochemiluminescence flow cell.

54. (Currently Amended) A method of conducting an electrochemiluminescence assay, the method comprising the steps of: ~~the step of inducing electrochemiluminescence in~~ providing an electrochemiluminescence cell comprising:

a. a working electrode and a counter electrode, wherein at least one of said electrodes comprises ~~rhodium or~~ a rhodium alloy comprising:

a first predetermined weight percent of rhodium; and

~~optionally,~~ a second predetermined weight percent of an element other than rhodium;

wherein said first predetermined weight percent is greater than zero and wherein said second predetermined weight percent is from 5% to 50%; and

b. a light detector and/or transparent portion of said cell in optical registration with said working electrode;

wherein the counter electrode is disposed adjacent to the working electrode and the light detector and/or the transparent portion; and

inducing electrochemiluminescence in the cell.

55. (Previously Presented) The method of claim 54, wherein said element is chosen from Pt, Ni, Pd, Co, Fe, Ru, Os, Cr, Mo, Zn, Nb, Ir, and W.

56. (Currently Amended) A method of conducting an electrochemiluminescence assay, the method comprising the steps of: ~~the step of inducing electrochemiluminescence in~~ providing an electrochemiluminescence cell comprising:

a. a working electrode and a counter electrode, wherein at least one of said electrodes comprises an iridium alloy comprising:

a first predetermined weight percent of iridium; and

a second predetermined weight percent of an element other than iridium;

wherein said first predetermined weight percent is greater than zero and wherein said second predetermined weight percent is from 5% to 50%; and

b. a light detector and/or a transparent portion of said cell in optical registration with said working electrode;

wherein the counter electrode is disposed between the working electrode and the light detector and/or the transparent portion; and

inducing electrochemiluminescence in the cell.

57. (Previously Presented) The method of claim 56, wherein said element is chosen from Pt, Ni, Pd, Co, Fe, Ru, Os, Cr, Mo, Zn, Nb, Rh, and W.

58. (Previously Presented) The method of claim 56, wherein said element is platinum.

59. (Withdrawn) A method of conducting an electrochemiluminescence assay in an electrochemiluminescence cell comprising:

a. forming a composition comprising an electrochemiluminescence label and an electrochemiluminescence coreactant;

b. positioning said composition at a working electrode;

c. applying electrical energy to said working electrode and a counter electrode to induce said electrochemiluminescence label to electrochemiluminesce; and

d. measuring an emitted electrochemiluminescence; wherein said electrochemiluminescence cell comprises:

(1) a counter electrode comprising a material chosen from

(i) a platinum alloy, wherein the alloying material other than platinum is from 5% to 50% by weight and said alloying material is chosen from Ni, Pd, Co, Fe, Ru, Os, Cr, Mo, Zn, Nb, Ir, Rh and W;

(ii) rhodium

(iii) a rhodium alloy, wherein the alloying material other than rhodium is from 1% to 80% by weight and said alloyed material is chosen from Ni, Pd, Co, Fe, Ru, Os, Cr, Mo, Zn, Nb, Ir, Pt, and W; and

(iv) an iridium alloy, wherein the alloying material other than iridium is from 5% to 50% by weight and said alloyed material is chosen from Ni, Pd, Co, Fe, Ru, Os, Cr, Mo, Zn, Nb, Pt, Rh, and W; and

(2) a light detector and/or transparent portion of said cell in optical registration with said working electrode.

60. (Withdrawn) A method of conducting an electrochemiluminescence assay comprising the steps of:

a. forming a composition comprising an electrochemiluminescence label and an electrochemiluminescence coreactant in an electrochemiluminescence assay apparatus comprising:

i. a working electrode;

ii. a counter electrode having a field extending element;

iii. a support optionally adjacent to said counter electrode, having a transparent portion; and

iv. a light detector;

wherein said field extending element is interposed between said working electrode and said transparent portion; and wherein each of said light detector and said transparent portion are in optical registration with said working electrode;

b. applying electrical energy to said working electrode and said counter electrode to induce said electrochemiluminescence label to electrochemiluminesce; and

c. measuring an emitted electrochemiluminescence.

61. (Withdrawn) A method of conducting an electrochemiluminescence assay comprising the steps of:

a. forming a composition comprising an electrochemiluminescence label and an electrochemiluminescence coreactant in an electrochemiluminescence assay apparatus comprising:

i. a working electrode;

ii. a counter electrode; and

iii. a light detector;

wherein said counter electrode is positioned closer to said light detector than said working electrode is;

b. applying electrical energy to said working electrode and said counter electrode to induce said electrochemiluminescence label to electrochemiluminesce while said counter electrode is at a constant potential or at a potential that does not vary relative to a potential of said light detector; and

c. measuring an emitted electrochemiluminescence.